Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Vol. 48 No. 7

BULLETIN

OF THE

TORREY BOTANICAL CLUB

JULY, 1921

A rearrangement of the Bolivian species of Centropogon and Siphocampylus

H. A. GLEASON

Of forty species enumerated in the following article, six have been known to science for from fifty to ninety years, while thirty-four bear names not over thirty years old. Modern investigation of the two genera begins with Zahlbruckner, who in 1891* described three new species from the collections of Mandon. In 1892 Britton published in his enumeration† of the South American plants collected by Rusby a list of fifteen species and two varieties of these genera, of which eight species and both varieties were described as new. This was followed in 1896 by Rusby's paper‡ on the Bolivian collections of Miguel Bang, in which four species were mentioned, including three described as new. Zahlbruckner in 1897§ monographed the Lobeliaceae of Bolivia and recognized nine species of *Centropogon*, of which two were published as new, and twenty species and three varieties of *Siphocampylus*, of which eight species and the three varieties were regarded as new, making a total of thirty-four. Rusby listed|| several species of both genera and described one as new in 1907, and in 1912 described**

---

* Ann. K. K. Naturhist. Hofmus. Wien **6**: 432–444. 1891.

† Bull. Torrey Club **19**: 371–374. 1892.

‡ Mem. Torrey Club **6**: 72–74. 1896.

§ Bull. Torrey Club **24**: 371–385. 1897.

|| Bull. N. Y. Bot. Gard. **4**: 400–404. 1907.

** Bull. N. Y. Bot. Gard. **8**: 121–123. 1912.

[The BULLETIN for June (**48**: 159–188) was issued August 1, 1921.]

three new species of *Siphocampylus* and one of *Centropogon* from the collections of Williams. Lauterbach published* a single variety in 1910, and in 1913 Zahlbruckner added three species† from the collections of Herzog.

Not all of these various species and varieties still stand just as they were published, but it is worthy of note that the studies in which they appeared were so exhaustive of the material at hand and subsequent collections have been so scanty that the present paper adds but one new species, although a second, recognized by Zahlbruckner and given a manuscript name by him, is here published. It is nevertheless fair to assume that more extended collection in Bolivia will bring to light probably a score or more new species.

Zahlbruckner's work was based largely on the same material as that used by Britton and Rusby, with additional specimens from certain European herbaria. The types of Britton's and of Rusby's species, and either the types or isotypes of most of Zahlbruckner's species, are in the collections at the New York Botanical Garden.

The four cited articles by Britton and Rusby include mere enumerations of the species with detached descriptions of their new species and varieties. Zahlbruckner gives in his monograph somewhat more detailed descriptions of the new species and frequent notes on the supposed affiliation of the others, and prefaces each genus with a key to the species included. His keys, however, are in general based on minor characters. While obviously related species are in most cases keyed out together, the characters used in distinguishing them are not of fundamental importance, give little idea of the relationship of the species, and can not be successfully used for the species of other South American countries.

Centropogon and *Siphocampylus* present the usual lobeliaceous structure. The leaves are almost always alternate, usually ample in size, and with a wide variation in shape, texture, and pubescence. The inflorescence is in a strict sense a terminal raceme, which by shortening of the internodes and suppression of the bracteal leaves becomes a terminal corymbose or subumbellate cluster, or by elongation of the internodes and better development of the subtending leaves is reduced to a series of solitary axillary flowers. The hypanthium, varying from depressed hemispheric to cylindric, bears five sepals, ranging from a size approximating the length of the corolla-tube to almost suppressed. The large corolla is usually brightly colored, with five equal or unequal, long or short, spreading, erect, or depressed lobes. The filaments usually surpass the corolla, and the anther-tube is frequently hirsute; in almost all species the two anterior anthers bear an appendage or tuft of hairs at the apex. The foliage is in some cases glabrous, but in most species is pubescent to tomentose with simple, branched or stellate hairs.

---

* Buchtien, Contr. Flora Bolivia **1**: 187. 1910.

† Med. Rijks Herb. **19**: 49–53. 1913.

The distinctions between *Centropogon* and *Siphocampylus* are difficult and in herbarium material frequently obscure or lacking; as a result, sheets of what is obviously one species have been classified by Zahlbruckner himself in both genera. In *Centropogon* the fruit is a dry or leathery indehiscent berry. This flattens out in pressing and is thin enough to show the impression of the small seeds within. In *Siphocampylus* the fruit is a stiff, firm-walled capsule, but in many or even most herbarium sheets available mature fruit is not at hand. In the former genus, also, the summit of the ovary is described as truncate, that is, as almost completely adnate to the hypanthium, while in the latter it is stated to be conical, with a free distal portion, and adnate to the hypanthium only at its base. This condition does obtain in the ripened fruit, but can not always be demonstrated in flower. Between the baccate and the capsular species there is extensive parallelism; so extensive that a doubt may legitimately arise whether the characters of the fruit are really of generic value.

Because of this parallelism, the species of the two genera have not been kept separate in this paper but have been keyed out side by side, using the shape of the corolla as the primary distinction between groups. Three such groups have been distinguished, of which one includes only species of *Centropogon* (in the usual sense), the second only species of *Siphocampylus*, and the third species of both genera. To obviate the necessity of descriptions, the analytical key has been made more detailed than necessary for the mere separation of the species.

In both genera, the species show unusually clear lines of demarcation, and are separated by characters of the hypanthium, corolla, anther-tube, inflorescence, foliage, and pubescence. But since these characters show little correlated variation, the delimitation of species-groups and the determination of intrageneric relations become a matter of some difficulty, which is increased rather than lessened by extending the study to other South American countries.

Both genera find their center of distribution with the greatest number of species in the Andean region of northwestern South America from Colombia to Bolivia. Other South American and all North American forms are to be referred to this center for their geographical origin.

CONSPECTUS OF THE SPECIES

I. Corolla relatively short and broad, but large, the tube equaling or little exceeding the lobes, thick and firm in texture, white, yellowish, ochroleucous, or dull purple; corolla-lobes all depressed, the upper somewhat exceeding the lower; sepals ample, equaling or longer than the hypanthium; flowers solitary, on long axillary peduncles.

A. Hypanthium turbinate, broader than high when pressed, prominently ribbed anther-tube glabrous, or pubescent only on the connectives; corollas white or cinereous, the lobes equaling or exceeding the tube in length; fruit capsular, so far as known.

1. Anther-tube glabrous, except the terminal brush.

a. Sepals triangular-subulate, 4 mm. long, much shorter than the hypanthium.

1. SIPHOCAMPYLUS TUNARENSIS A. Zahlb. Bull. Torrey Club **24**: 376. 1897.

The specimen in the herbarium of the New York Botanical Garden is fragmentary and does not permit the verification of Zahlbruckner's detailed description, but is sufficient to demonstrate its close relation to the following three species. Fruit has not been seen.

b. Sepals linear, equaling or exceeding the hypanthium in length.

2. SIPHOCAMPYLUS RUSBYANUS Britton, Bull. Torrey Club **19**: 372. 1892.

Sepals 10 mm. long by 2 mm. wide; leaf-blades ovate-elliptic, 5–9 cm. long, acute or obtuse, rugose above, reticulate beneath, abruptly narrowed into a petiole 10–15 mm. long.

3. SIPHOCAMPYLUS VATKEANUS A. Zahlb. Bull. Torrey Club **24**: 377. 1897.

Sepals little exceeding the hypanthium; leaf-blades oblong-lanceolate, 6–10 cm. long, 2–3 cm. wide, acuminate, tomentose on the reticulate veins beneath, obtuse or rounded at base, on petioles 1–2 cm. long.

2. Anther-tube white-woolly.

4. SIPHOCAMPYLUS RADIATUS Rusby, Mem. Torrey Club **6**: 73. 1896.

Sepals 20–25 mm. long, 3–4 mm. wide, somewhat dilated below; leaf-blades lanceolate, 15–25 cm. long, acuminate, flat above, not conspicuously reticulate, gradually narrowed below to an indefinite petiole or sessile base.

4*a*. SIPHOCAMPYLUS RADIATUS MINOR A. Zahlb. Bull. Torrey Club **24**: 376. 1897.

Plant smaller in all its parts; pedicels surpassing the leaves.

B. Hypanthium short-cylindric, higher than broad when pressed, or depressed-hemispheric; corolla-lobes usually shorter than the tube; anther-tube densely woolly; fruit baccate, so far as known.

1. Sepals linear or narrowly lanceolate, four to ten times as long as broad, longer than the short-cylindric hypanthium, equaling or exceeding the corolla-tube, with rounded sinuses nearly or quite as broad as the sepals; leaf-blades large, elliptic, 15–25 cm. long.

5. CENTROPOGON INCANUS (Britton) A. Zahlb. Bull. Torrey Club **24**: 374. 1897.

Siphocampylus incanus Britton, Bull. Torrey Club **19**: 373. 1892.

Petals and sepals densely floccose with yellowish gray hairs; filaments little exserted, the anther-tube barely surpassing the corolla; leaf-blades 5–10 cm. long, abruptly acuminate, floccose below and somewhat so above.

6. CENTROPOGON BRITTONIANUS A. Zahlb. Bull. Torrey Club **24**: 373. 1897.

Siphocampylus giganteus latifolius Britton, Bull. Torrey Club **19**: 373. 1892.

Petals and sepals thinly pubescent; filaments long (2 cm. or more)-exserted; leaf-blades 4–7 cm. broad, gradually acuminate, thinly tomentose on the veins beneath, puberulent above.

6*a*. CENTROPOGON BRITTONIANUS BREVIDENTATUS Zahlb. & Rechinger, Med. Rijks Herb. **19**: 51. 1913.

The authors state that the variety differs from the species in sepals only 10–12 mm. long and in much narrower and longer corolla-lobes.

2. Sepals broadly ovate to oblong, less than four times as long as wide, mostly shorter than the corolla-tube and not much exceeding the hypanthium, with narrow acute sinuses; hypanthium depressed-hemispheric or somewhat urceolate.

a. Sepals broadly ovate-triangular, herbaceous.

7. **Siphocampylus tunicatus** A. Zahlb. in herb.

Hypanthium and foliage nearly glabrous; leaf-blades broadly elliptic to obovate, 20–25 cm. long, 7–13 cm. wide, thin, abruptly acuminate; additional characters as in the key.

TYPE collected April, 1892, in Bolivia, at an altitude of 3000 m., by Otto Kuntze, and deposited in the herbarium of the New York Botanical Garden. A second sheet from the same collector comes from Santa Rosa, Bolivia, and is possibly a part of the same collection. The fruit is unknown but the floral characters show unmistakably the close relation of the species to the two following, *Centropogon Mandonis* and *C. gloriosus*, and it is quite probable that it will eventually be transferred to the genus *Centropogon*.

b. Sepals oblong or oblong-ovate, thick and firm, serrulate.

8. CENTROPOGON MANDONIS A. Zahlb. Ann. K. K. Naturhist. Hofmus. Wien **6**: 438. 1891.

Corolla-tube about twice as long as the erect, narrowly oblong sepals; filaments much surpassing the corolla; anther-tube hirsute with tawny hairs; leaves acute.

9. CENTROPOGON GLORIOSUS (Britton) A. Zahlb. Bull. Torrey Club **24**: 373. 1897.

Siphocampylus gloriosus Britton, Bull. Torrey Club **19**: 373. 1892.

Corolla-tube one third to one half longer than the oblong-ovate, frequently spreading or reflexed sepals; filaments about equaling the corolla; anther-tube hirsute with purple hairs; leaves long-acuminate.

II. Corolla tubular, slender, straight or somewhat curved, usually constricted above its base, little if any wider at the throat than at the base: corolla-lobes linear or linear-deltoid and regularly tapering from base to apex, all erect or slightly spreading, the lateral and ventral fissures usually progressively deeper than the dorsal; filaments equaling or barely exceeding the dorsal petals; the two ventral anthers with a terminal brush of separate hairs; fruit capsular, so far as known.

A. Hypanthium well developed and the ovary consequently mainly inferior.

1. Flowers in leafy corymbs, leafy racemes, or solitary in the axils of normal foliage leaves.

a. Anther-tube glabrous, except for the terminal brush, or with a few scattered hairs only.

i. Flowers axillary, subtended by normal foliage leaves.

* Sepals linear, exceeding the hypanthium; leaves much longer than wide.

† Peduncles well developed, equaling or surpassing the flowers, which exceed the subtending leaves.

‡ Leaves in whorls of three.

10. SIPHOCAMPYLUS ORBIGNIANUS A. DC.; DeCandolle, Prodr. **7**: 405. 1839.

Siphocampylus volubilis Britton, Bull. Torrey Club **19**: 372. 1892.

Leaf-blades ovate to ovate-oblong, sharply and irregularly dentate; sepals filiform, much exceeding the hypanthium; corolla scarlet.

The wealth of herbarium material indicates that this is the commonest Bolivian species of the two genera. It is distinguished at once by its verticillate leaves.

‡‡ Leaves alternate, oblong or elliptic to linear.

§ Corolla yellow or yellowish; leaf-blades linear to narrowly lanceolate, subentire, undulate, or with minute spinulose teeth.

11. SIPHOCAMPYLUS KUNTZEANUS A. Zahlb. Bull. Torrey Club **24**: 378. 1897.

Anther-tube surpassing the corolla; leaves neatly linear, crowded, conduplicate.

12. SIPHOCAMPYLUS AUREUS Rusby, Mem. Torrey Club **6**: 72. 1896.

Siphocampylus aureus latior A. Zahlb. Bull. Torrey Club **24**: 378. 1897.

Anther-tube not exserted; leaves linear-lanceolate, membranous, flat.

§§ Corolla red.

|| Leaf-blades narrowly oblong-linear, narrowed below to an indefinite petiole, thick, remotely denticulate.

13. SIPHOCAMPYLUS WILLIAMSII Rusby, Bull. N. Y. Bot. Gard. **8**: 122. 1912.

|| || Leaf-blades lanceolate to ovate-lanceolate, petioled, membranous, sharply and irregularly spinulose, 8–12 cm. long.

14. SIPHOCAMPYLUS BOLIVIENSIS A. Zahlb. Ann. K. K. Naturhist. Hofmus. Wien **6**: 443. 1891.

Sepals equaling or barely exceeding the subglobose hypanthium; stems stout; leaves firm, brownish and scabrously pubescent beneath.

15. SIPHOCAMPYLUS DUBIUS A. Zahlb. Bull. Torrey Club **24**: 385. 1897.

Sepals longer than the depressed-hemispheric hypanthium; stems slender; leaves thin, green and puberulent on the veins beneath.

†† Peduncles short, equaling or shorter than the flowers, which do not surpass the subtending leaves; hypanthium turbinate; sepals linear, reflexed; leaf-blades oblong, short-petioled; stems climbing.

16. SIPHOCAMPYLUS MEMBRANACEUS Britton, Bull. Torrey Club **19**: 372. 1892.

Leaves thin, membranous, sharply spinulose-dentate, veiny; peduncles equaling the corolla.

17. SIPHOCAMPYLUS OBLONGIFOLIUS Rusby, Mem. Torrey Club **6**: 73. 1896.

Leaves firm, minutely and remotely spinulose; peduncles shorter than the corolla.

** Sepals narrowly triangular, shorter than the hypanthium.

18. SIPHOCAMPYLUS CORREOIDES A. Zahlb. Bull. Torrey Club **24**: 382. 1897.

Foliage and flowers tomentulose; leaf-blades broadly ovate, undulate and spinulose-denticulate, 15–25 mm. long.

ii. Flowers in terminal corymbs or much abbreviated racemes; hypanthium turbinate or somewhat urceolate; sepals about equaling the hypanthium, distant, with rounded sinuses; leaf-blades sharply and saliently serrate, of an ovate type, firm, dull-green.

19. SIPHOCAMPYLUS CORYMBIFERUS Pohl. Plant. Brasil. **2**: 112. *pl. 175.* 1831.

Lobelia corymbifera Presl, Prodr. Monogr. Lobel. 37. 1836.

Siphocampylus gracilis glabris Britton, Bull. Torrey Club **19**: 374. 1892.

Leaves glabrous.

20. SIPHOCAMPYLUS GRACILIS Britton, Bull. Torrey Club **19**: 374. 1892.

Siphocamplyus corymbiferus gracilis A. Zahlb. Bull. Torrey Club **24**: 384. 1897.

Leaves softly pubescent.

iii. Flowers in crowded leafy racemes.

21. SIPHOCAMPYLOS TUPAEFORMIS A. Zahlb. Ann. K. K. Naturhist. Hofmus. Wien **6**: 440. 1891.

Hypanthium hemispheric or somewhat urceolate, ribless or faintly nerved; flowers 40–45 mm. long, approximately equaling the ascending, straight or gently curved pedicels; leaves softly pubescent beneath.

b. Anther-tube conspicuously woolly in five strongly marked lines; leaf-blades lanceolate or broader, rounded at base; sepals much longer than the hypanthium, which is strongly ribbed at maturity.

* Leaf-blades long-acuminate, ovate-lanceolate to lance-oblong, sharply and irregularly spinulose-denticulate.

22. SIPHOCAMPYLUS ARGUTUS A. Zahlb. Bull. Torrey Club **24**: 383. 1897.

Leaf-blades thin, glabrous beneath, not prominently reticulate; petioles straight or curved.

23. SIPHOCAMPYLUS BILABIATUS A. Zahlb. Bull. Torrey Club **24**: 382. 1897.

Siphocampylus bilabiatus glabratus Lauterbach; Buchtien, Contr. Flora Bolivia **1**: 187. 1910.

Leaf-blades firm, pubescent beneath, prominently reticulate; petioles sigmoid.

** Leaf-blades ovate-oblong, 5–8 cm. long, broadly rounded or subcordate at base, obtuse or rounded at apex, minutely and remotely denticulate.

24. SIPHOCAMPYLUS SUBCORDATUS Rusby, Bull. N. Y. Bot. Gard. **8**: 121. 1912.

2. Flowers in terminal, leafless, bracted racemes; pedicels flexuous in anthesis, 1 cm long or less; hypanthium turbinate, strongly ribbed or subangulate, somewhat constricted at the throat, equaling or exceeding the relatively short sepals; calyx-sinuses broad.

a. Hypanthium glabrous; leaf-blades falcate, conduplicate.

25. SIPHOCAMPYLUS ANGUSTIFLORUS Schlecht.; Lechler, Pl. Lechler. Peruv. *2649.*

Specimens of this species have not been seen: the distinction between it and the following are taken from Zahlbruckner.

b. Hypanthium pubescent; leaf-blades flat.

26. SIPHOCAMPYLUS FLAGELLIFORMIS A. Zahlb. Bull. Torrey Club **24**: 380. 1897.

Siphocampylus angustiflorus Britton, Bull. Torrey Club **19**: 372. 1892; not *S. angustiflorus* Schlecht.

Leaf-blades lanceolate or narrowly elliptic-ovate, acuminate, 40–60 mm. long, 15–22 mm. wide, sharply serrulate, glabrous and conspicuously veiny beneath.

27. **Siphocampylus altiscandens** sp. nov.

Stems puberulent, climbing 40 feet high on trees; leaves rather crowded, the blades flat, firm in texture, ovate-oblong, acute or subacuminate, entire or remotely and minutely serrulate, almost glabrous above, minutely puberulent beneath, the larger ones 60–75 mm. long by 25–35 mm. wide; inflorescence secund, the pedicels 10 mm. long or less; flowers deflexed; hypanthium thinly pubescent, turbinate or obconic, 4 mm. high; sepals triangular, 1 mm. long, with recurved tips; corolla rose-color, 30–35 mm. long, its lobes linear, erect or spreading; filaments about equaling the petals; anthers glabrous below, all more or less hirsute at the tip.

TYPE, *Bang 2553*, collected at Uchimachi, Corvico, Bolivia, July 20, 1894, and deposited in the herbarium of Columbia University. His field notes state that it grows in damp forests and that only two plants were seen, from which forty specimens were collected. It is sharply distinguished from the preceding species by its leaf characters.

B. Hypanthium very small in proportion to the flower and the ovary mainly free; corolla scarlet, 6–7 cm. long; leaf-blades of a lanceolate or ovate type; sepals usually serrulate; stems climbing: anther-tube glabrous.

1. Sepals linear to linear-oblong, prominently reflexed; leaves sharply acuminate.

28. SIPHOCAMPYLUS ELEGANS Planch. Flore des Serres **6**: 19. 1850.

Leaf-blades thick and firm, elongate-lanceolate, rounded or truncate at base.

Siphocampylus elegans boliviensis A. Zahlb. Bull. Torrey Club **24**: 381. 1897.

The single specimen examined, *Mandon 498*, does not agree perfectly with Planchon's figure and may prove specifically distinct.

29. SIPHOCAMPYLUS REFLEXUS Rusby, Bull N. Y. Bot. Gard. **4**: 403. 1907.

Siphocampylus elegans cordatus A. Zahlb. Bull. Torrey Club **24**: 381. 1897.

Leaf-blades thin, ovate-lanceolate, with a long narrow acumination, distinctly cordate at base.

2. Sepals ovate-oblong, erect or somewhat spreading; leaves acute to subacuminate.

30. SIPHOCAMPYLUS ANDINUS Britton, Bull. Torrey Club **19**: 373. 1892.

III. Corolla tubular, stout, conspicuously ventrally curved, little or not at all constricted at base, distinctly ampliate toward the throat, corolla-lobes with broad bases, more or less oblique, and curved or directed anteriorly, the two upper usually distinctly larger and broader than the three lower, the lower fissures little if any deeper than the dorsal; fruit baccate, so far as known.

A. Ventral anthers terminating in a tuft of loose hairs, dorsal anthers sparsely pilose; hypanthium distinctly urceolate; foliage and flowers strongly tomentulose; petals all about equal, broadly and obliquely triangular, acute; filaments long-exserted; leaves petioled, the blades oblong-lanceolate, acute.

31. CENTROPOGON UNDUAVENSIS (Britton) A. Zahlb. Bull. Torrey Club **24**: 374. 1897.

Siphocampylus unduavensis Britton, Bull Torrey Club **19**: 373. 1892.

B. Ventral anthers terminating in a stiff scale composed of united hairs; hypanthium hemispheric to campanulate; foliage and flowers not tomentulose; at least the much smaller lower petals terminating in linear or subulate strongly curved appendages.

1. Sepals linear to triangular, with broad flat sinuses; leaf-blades narrowly to broadly oblong or obovate.

* Leaf-blades broadly oblong, almost entire.

32. CENTROPOGON YUNGASENSIS Britton, Bull. Torrey Club **19**: 371. 1892.

Leaves firm, glabrous; sepals triangular, distinctly shorter than the hypanthium.

** Leaf-blades narrowly oblong denticulate or crenate.

33. **Centropogon aggregatus** (Rusby) comb. nov.

Siphocampylus aggregatus Rusby, Bull. N. Y. Bot. Gard. **8**: 122. 1912.

Filaments tomentose toward the summit; anther-tube pubescent in lines; sepals equaling the hypanthium or a little shorter; leaves crenate.

34. CENTROPOGON SURINAMENSIS (L.) Presl, Prodr. Monogr. Lobel. 48. 1836.

Lobelia surinamensis L. Sp. Pl. ed. 2, 1320. 1763.

Filaments glabrous or with scattered hairs; anther-tube sparsely hirsute or glabrous; sepals serrate, distinctly exceeding the hypanthium: leaves denticulate.

2. Sepals linear-triangular to ovate, with narrow acute sinuses; leaf-blades oblong-lanceolate to lanceolate, usually sharply denticulate; flowers in terminal corymbose clusters.

* Sepals narrowly linear-triangular, entire, much longer than the hypanthium.

35. CENTROPOGON AMPLIFOLIUS Vatke, Linnaea **38**: 716. 1874.

** Sepals triangular-ovate to broadly ovate.

36. CENTROPOGON BANGII A. Zahlb. Bull. Torrey Club **24**: 372. 1897.

Sepals triangular-ovate, entire, shorter than the hypanthium.

37. CENTROPOGON ROSEUS Rusby, Bull. N. Y. Bot. Gard. **8**: 123. 1912.

Sepals broadly ovate, foliaceous, denticulate.

IV. Species of uncertain position, specimens of which have not been seen.

38. CENTROPOGON MAGNIFICUS Zahlb. & Rechinger, Med. Rijks Herb. **19**: 50. 1913.

Evidently a member of the first group of this conspectus; compared by the authors with *C. Mandonis* Zahlb., from which it differs in its fewer flowers on longer pedicels, straight-edged sepals, denser pubescence on the corolla, obviously lignified twigs, and stiffer rough leaves.

39. CENTROPOGON HERZOGI Zahlb. & Rechinger, Med. Rijks Herb. **19**: 49. 1913.

Evidently a member of the second section of this conspectus, as indicated by the description of the corolla; flowers axillary, hypanthium globose or subglobose, sepals short, acute, broadly triangular, anther-tube glabrous, except the terminal tuft.

40. CENTROPOGON CARDINALIS Zahlb. & Rechinger, Med. Rijks, Herb. **19**: 51. 1913.

Evidently a member of the third group of this conspectus, possibly related to *C. Bangii* Zahlb.; inflorescence a short terminal raceme, hypanthium globose, sepals short, triangular, entire, anther-tube glabrous, except the terminal appendage, leaves obovate-elliptic.

NEW YORK BOTANICAL GARDEN